RHINO-D 500 K4

The new generation diesel engine-driven welding set

CC MMA DC TIG

Key Attributes

- Chopper-based Energy Efficient, Diesel Engine-Driven Welding Generator. It is intended for heavy-duty Manual Metal ARC Welding, Gouging & TIG welding.
- Welding current remains constant irrespective of engine speed variation or change in welding cable length.
- Big savings in fuel and longer runs before the next refuelling.
- Specially proven with Cellulosic (6010, 7010G & 8010G types) and other special types of electrodes.
- The welding generator is protected against output short circuit and over temperature.
- The set also has a built-in 3-phase 22 KVA and 1-phase 6 KVA auxiliary power source for lighting, grinding, hand tools, and other auxiliary purposes.

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peace of mind™

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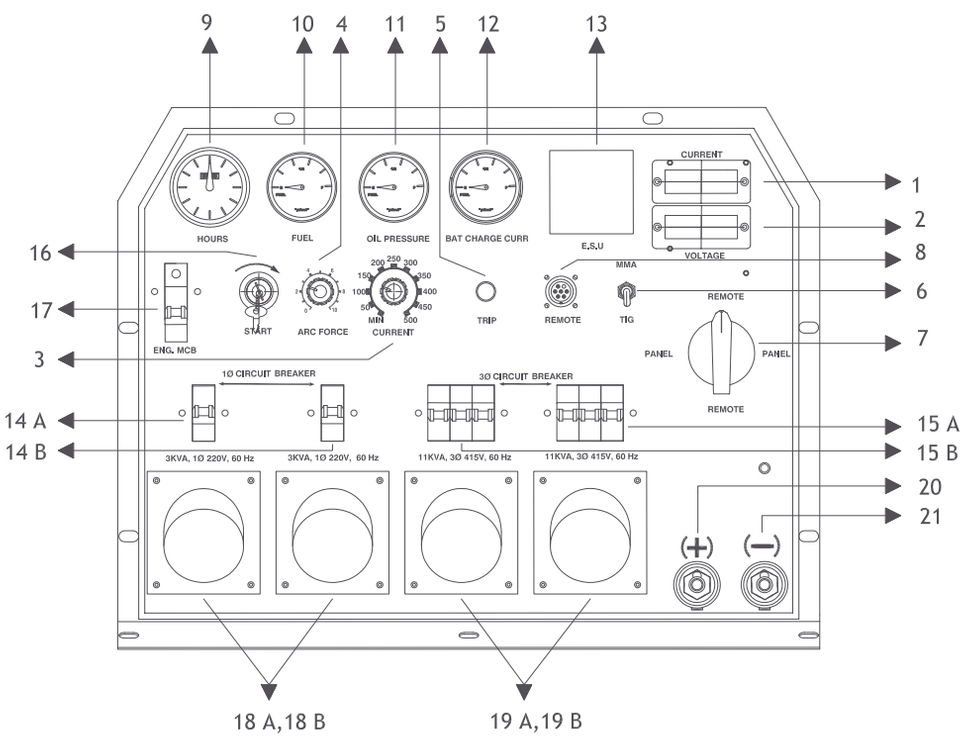
SALIENT FEATURES

- Versatile applications, including cross country, in-plant pipe, and tube welding.
- Ideal for heavy fabrication & site applications.
- Highly reliable even in hostile site conditions.
- Controlled noise level.
- Brushless design. Negligible maintenance.

ENGINE

The engine is a four-cylinder air-cooled diesel engine. It is supplied with a heavy-duty dry-type air cleaner, fuel filter, fuel lift pump, mechanical governor, electric starting motor, and battery charging alternator. The engine is protected against high cylinder head temperature and low lube oil pressure.

CONTROL PANEL



1 = Digital Ammeter
2 = Digital Voltmeter
3 = Current Control Potentiometer
4 = Arc Force Potentiometer
5 = Trip Indicator Lamp
6 = MMA / TIG Selector switches
7 = Local / Remote Selector Swich
8 = Remote Control Socket
9 = Engine Hour Meter
10 = Fuel Level Indicator
11 = Lub Oil Pressure Indicator
12 = Battery Charging Current Indicator
13 = ENGINE SAFETY UNIT
14 A, 14 B = Circuit Breakers for 1 Ø Auxiliary Supply
15 A, 15 B = Circuit Breakers for 3 Ø Auxiliary Supply
16 = Engine Starting Switch
17 = Engine Starting MCB
18 A, 18 B = 1 Ø Auxiliary Supply Sockets
19 A, 19 B = 3 Ø Auxiliary Supply Sockets
20 = Welding Output Terminal Positive
21 = Welding Output Terminal, Negative

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CONTROL PANEL SELECTION FOR ENGINE CONTROL (9, 10, 11, 12, 13, 16, 17)

The engine controls and instruments consist of a temperature gauge, hour meter, battery charging ammeter, oil pressure gauges, start key switch, and engine protection relay.

- Engine Circuit Breaker: Before starting the engine, switch on the engine circuit breaker.
- Key Switch: Engine Start/Stop & Ignition ON.
- Engine Stop Solenoid: This is a 12 V solenoid used to operate the fuel cut-off lever fitted on the fuel injection pump.
- Engine Protection Unit: This unit activates the engine stop solenoid in the event of low lubricant oil pressure, high cylinder head temperature, or fan belt failure.
- Temperature Switch: This is fitted on one of the cylinder heads and is used for sensing the temperature of the cylinder heads.
- Pressure Switch: This is fitted on the cylinder block through a flexible pressure pipe. It senses the lubricant oil pressure.
- Belt Failure Switch: This gets actuated in the event of fan belt failure.

CONTROL PANEL SELECTION FOR AUXILIARY POWER (14, 15, 18, 19)

There are four power sockets provided, each protected by individual MCBs.

- Two sockets rated at 3-phase, 60 Hz, 415 V, 11 KVA each (total 22 KVA).
- Two sockets rated at 1-phase, 60 Hz, 220 V, 3 KVA each (total 6 KVA).

AUXILIARY PANEL RATINGS

MODE	WELD LOAD TOGETHER WITH AUXILIARY LOAD	AUXILIARY MODE ONLY WITHOUT WELD LOAD	UNIT
RATING (3 PHASE)	18 KVA (AT WELDING LOAD OF MAXIMUM 500 A, 40 V)	22 KVA TOTAL (11 KVA + 11 KVA FROM EACH SOCKET)	KVA
RATING (SINGLE PHASE)	6 KVA (AT WELDING LOAD OF MAXIMUM 500 A, 40 V)	6 KVA TOTAL (3 KVA + 3 KVA FROM EACH SOCKET)	KVA
VOLTAGES (3 & 1 PHASE)	415 / 220	415 / 220	VOLTS
FREQUENCY	60	60	HZ
PHASES	3 / 1	3 / 1	NO
MCB RATING	16 / 16	16 / 16	AMPS

CONTROL PANEL SELECTION FOR WELDING (1, 2, 3, 4, 5, 6, 7, 8, 20, 21)

The Welding Control section of the front panel consists of the following:

- Potentiometers for Welding Current and Arc Force Control.
- Panel / Remote and MMA / TIG Mode Selector Switches.
- Remote Control Socket.
- Digital Ammeter and Voltmeter.
- Trip Indicator Lamp.
- Welding Output Terminals (+ve, -ve).

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TECHNICAL SPECIFICATIONS

PARAMETER	VALUE	UNIT
WELDING GENERATOR	BRUSHLESS	TYPE
WELDING CURRENT RANGE	30 - 500 A	AMPS
MAX. HAND WELDING CURRENT @ 60% DC	500 AMPS @ 40V	AMPS
MAX. HAND WELDING CURRENT @ 100% DC	400 AMPS@ 36V	AMPS
OPEN CIRCUIT VOLTAGE (MAX)	92 VDC	VOLTS
GENERALLY, CONFORMS TO	IS - 2635	IS
INSULATION	H	CLASS
ENGINE	**VALUE**	**UNIT**
ENGINE MAKE, TYPE	KIRLOSKAR; HA - 494	-
CYLINDER	4	NOS.
ENGINE COOLING	AIR COOLED	TYPE
ENGINE RATING	52 BHP @ 1800 RPM	BHP
ENGINE RATED SPEED	1800	RPM
CONFORMS TO	ISO - 3046	ISO
STARTING (12V)	ELECTRIC	BATTERY
BATTERY CAPACITY (12V)	80 (CCA AT - 18°C AS PER IEC 420 A)	AH
FUEL CONSUMPTION	5.5	LTRS/HR.
FUEL TANK CAPACITY	70	LTRS.

DIMENSIONS AND WEIGHT

MACHINE TYPE	SKID MOUNTED	TWO WHEEL MOUNTED	FOUR WHEEL MOUNTED
L X W X H (MM)	2100 X 820 X 1250	3050 X 1455 X 1850	3435 X 1555 X 2100
APPROX. (KG)	1100	1250	1298

FG CODE	DESCRIPTION
F10.33.102.0060	DIESEL ENGINE DRIVEN SET, MODEL: RHINO-D 500 K4, 3 PHASE AUXILIARY 415 VOLTS, 22 (11+11) KVA (2 SOCKETS); 1 PHASE AUXILARY 220 VOLTS, 6 (3+3) KVA (2 SOCKETS), SKID MOUNTED.
F10.33.102.0061	DIESEL ENGINE DRIVEN SET, MODEL: RHINO-D 500 K4, 3 PHASE AUXILIARY 415 VOLTS, 22 (11+11) KVA (2 SOCKETS); 1 PHASE AUXILARY 220 VOLTS, 6 (3+3) KVA (2 SOCKETS), 2 WHEEL UNDERCARRIAGE.
F10.33.102.0062	DIESEL ENGINE DRIVEN SET, MODEL: RHINO-D 500 K4, 3 PHASE AUXILIARY 415 VOLTS, 22 (11+11) KVA (2 SOCKETS); 1 PHASE AUXILARY 220 VOLTS, 6 (3+3) KVA (2 SOCKETS), FOUR WHEEL UNDERCARRIAGE.

Warranty: Three years from the date of commissioning. ADOR WELDING LIMITED warrants that all new equipment sold from Plant/Area Offices / Authorized Distributors are free from defects in materials and workmanship and will perform in full accordance withapplicable specifications.

All engines and engine accessories are warranted by the engine or engine accessory manufacturer and are not covered by this warranty.

ADOR is not responsible for cable wear and consequential damage resulting from cable wear due to flexing and abrasion. End user is responsible for routine inspection of cables for possible wear and to remedy the issue prior to cable failure.

In view of continuous development, ADOR WELDING LIMITED reserves the right to modify/change the design and /or the specifications without any prior notice.

Backed by dedicated customer care package.